

**CALIFORNIA COASTAL COMMISSION**

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**STAFF REPORT AND RECOMMENDATION  
ON CONSISTENCY DETERMINATION**Consistency Determination No. **CD-23-01**

Staff: JRR-SF

File Date: 3/16/2001

60th Day: 5/15/2001

75th Day: 5/30/2001

Commission Meeting: 5/9/2001

**FEDERAL AGENCY:** **U.S. Air Force****PROJECT  
LOCATION:**

Minuteman, Wall, Surf, and Ocean Beaches, Vandenberg  
Air Force Base, Santa Barbara County (Exhibit 1).

**PROJECT  
DESCRIPTION:**

Interim restrictions on beach access, enforcement plan,  
and predator management plan (Exhibits 2, 3, and 4) to  
protect nesting habitat for the western snowy plover.

**SUBSTANTIVE  
FILE DOCUMENTS:**

See page 18.

**STAFF NOTE**

At its April 2001 meeting, the Commission held a public hearing on the proposed interim restrictions. Because the Air Force's consistency determination did not include a management plan for the snowy plover, the Commission was unwilling to concur with the consistency determination until it reviewed, at least, the enforcement and predator management components of the management plan. At the hearing, the Air Force agreed to keep all the beaches closed until the Commission reviewed these plans and committed to revising the submittal to include these documents. As of the publication of this staff report, the Commission has not received these plans, but it expects the report before the Commission's May meeting. Without that report, the staff continues to recommend objection. However, the staff may change its recommendation after reviewing the enforcement and predator management plans.

## **EXECUTIVE SUMMARY**

The Air Force submitted a consistency determination for “interim” restrictions to beach access on Vandenberg Air Force Base (Vandenberg) in order to protect the western snowy plover, a federally listed threatened species. This closure is a re-implementation of previous closures, which began in July 1999. The Air Force’s consistency determination requests concurrence with its proposal to continue with interim beach closures for the 2001-nesting season. The Air Force proposes that the following beaches remain open for recreational use: (1) general public access to 0.5 mile of Surf Beach in the vicinity of Surf Station; (2) military personnel and limited civilian (by pass only and for fishing purposes) access to the northernmost 0.25 mile of Wall Beach; and (3) military personnel access only to Minuteman Beach. In its biological opinion, the U.S. Fish and Wildlife Service (Service) approved the interim closures that included commitments to prepare plans for enforcement, monitoring, public education, predator control, and exotic plant removal.

The Air Force has been working with the Service and the Commission staff for a number of years on the conflict caused by the plover habitat protection measures and recreational use of the beach. Both needs are critical along this stretch of coastline. Vandenberg provides very valuable nesting habitat for the plover and is vital to the recovery of the species. However, Vandenberg is located on a stretch of coast that has limited public access opportunities. Between Pt. Sal and Gaviota, a 64-mile stretch of coast, there are only two publicly accessible beaches.

In reviewing similar restrictions in the past, the Commission has found these restrictions to be consistent with the public access and recreation (Sections 30210-30214) and the habitat (Section 30240) policies of the Coastal Act. Past monitoring data indicated that the snowy plover population had declined and that it was necessary to implement more restrictive measures to protect the plover. There was substantial scientific evidence, including some monitoring data, that supported the conclusion that the plover was adversely affected by recreational activities on the beach. However, the proposed access and recreation restrictions are not based on the presumption that beach recreational use was the sole cause of the decline. Rather, recreation restrictions were measures that the Air Force could immediately implement and were likely to result in increasing plover populations on Vandenberg.

The beach closures that occurred in 1999 were necessary to respond to a dramatic crash of the plover population on the base. The Commission concurred with the 2000 closures because the Air Force proposed to prepare a plover management plan by the end of the summer of 2000. The Air Force has not completed its plover management plan and is once again requesting the Commission to concur with an interim closure. The vital component of the management plan that is necessary for the Commission to concur with the access restrictions is the enforcement and predator management plan. Without these management plans the access

restrictions alone may not provide significant protection to natural resources and the duration of the access restrictions may be extended. Therefore, the proposed access restrictions are not consistent with the access policies of the California Coastal Management Program (CCMP).

The Air Force's consistency determination provides for the option of closing all the beaches to recreation use through the remainder of the nesting season. The option for full closure is necessary to allow the Air Force to meet the Service's dawn to dusk enforcement requirements. To meet this requirement, the Air Force must ensure that it has adequate enforcement staff available to meet its commitments to manage the beach closures. The option for total closure is a necessary component of the Air Force's habitat management, and therefore, it is consistent with access policies of the Coastal Act (Sections 30210, 30213, and 30214), because those policies provide habitat protection as a basis of limits on access and recreation opportunities. Therefore, the total closure of the affected Vandenberg beaches is consistent with the access policies of the CCMP.

The sandy beaches on Vandenberg support nesting snowy plovers, a federally listed threatened species. In addition, the Service has designated these beaches as "Critical Habitat" for the snowy plover. Therefore, the snowy plover habitat on Vandenberg is an environmentally sensitive habitat area (ESHA). The purpose of these access restrictions are to provide better management of the sensitive resource and, as such, is an activity that is dependent on the sensitive habitat resources. Finally, since the beach restrictions will reduce human disturbances, the activity would not significantly affect the ESHA. Therefore, the project is consistent with ESHA policy of the CCMP (Coastal Act Section 30240).

#### **STAFF SUMMARY AND RECOMMENDATION:**

I. **Project Description.** The Air Force proposes to extend interim restrictions on beach access (including military personnel) at beaches where snowy plovers nest on Vandenberg Air Force Base in northern Santa Barbara County. The closures will occur during the plover's nesting season, March through September. Under this interim plan, the Air Force proposes to provide open (i.e., not a linear restriction) recreational access during the nesting season to three separate areas:

- Public access to 0.5 mile of Surf Beach in the vicinity of Surf Station, using the existing access trail and a trail from Ocean Beach County Park along the back dunes. The southern boundary of the closure will be just south of the Surf Station access route. The northern boundary will be established so as to avoid the cluster of several nests that typically occurs on the northern edge of this beach segment (Exhibit 2).

- Military access and civilian fishing access (subject to Vandenberg pass) only to the northernmost 0.25 mile of Wall Beach (Exhibit 3).
- Military access only to the northernmost 0.5 mile of Minuteman Beach, on the bluff-backed beach north of the existing access trail where snowy plover nesting has not been known to occur to date (Exhibit 4).

The Air Force consistency determination included a request that the Commission consider “*continued full closure of snowy plover nesting beaches through September 30, 2001.*” The extended beach closures are necessary due to the requirement to provide dawn to dusk enforcement of the access restrictions.

The Air Force proposes to implement extensive enforcement of its beach recreation restrictions. The Air Force proposes to use three enforcement officers assigned at open beaches from dawn to dusk every day. One person will be stationed at Surf Beach, another at Ocean Park, and a third person will patrol both Wall and Minuteman Beaches. Periodic night patrols will also be conducted. In addition, the Air Force proposes to limit its enforcement staff to foot or horseback and to restrict them to the wet sand in closed areas to the maximum extent practicable. The Air Force’s enforcement staff will use “All terrain vehicles” only for emergency purposes and will remain on the wet sand to the maximum extent possible.

In addition, the Air Force proposed to monitor violations of the recreation restrictions and reduce recreational use should the violations exceed the predetermined limits. Specifically, the Air Force proposes the following:

- If the Air Force documents more than 25 violations of the closed area of Surf Beach during the breeding season, it will close Surf Beach to all recreational access until September 30.
- If the Air Force documents more than 10 violations of the closed area of Wall Beach during the breeding season, it will close that beach to all recreational access until September 30.
- If the Air Force documents more than 5 violations of the closed area of Minuteman Beach during the breeding season, it will close that beach to all recreational access until September 30.

All other beach areas on Vandenberg supporting nesting snowy plovers would be closed from March 1 through September 30, 2001. In all, 11.25 miles (90 percent) of nesting habitat on Vandenberg would be protected during the nesting season.

**II. History of Plover-Related Closures.** In 1995, the Air Force proposed a one-year “linear” closure of Surf and Wall Beaches area above +7 ft. mean lower low

water (MLLW) during the plover's nesting season. The closure was accompanied by signs restricting entrance into the plover nesting area, interpretive signs explaining the status of this threatened species, and active enforcement and education by Base and Fish and Wildlife Service personnel. After the Air Force agreed to limit the closure to one year and return at a later date with an access management plan protecting the plovers, the Commission concurred and found the linear closure consistent with the public access policies of the Coastal Act. The Commission and the Air Force had hoped that a linear closure would benefit snowy plover nesting success without significantly affecting public use of the beach.

The Air Force did not formally return to the Commission the following year for an extension to these restrictions. However, the Air Force did continue to work with the Commission staff and the U.S. Fish and Wildlife Service in subsequent years to continue to implement the linear restrictions and continue to monitor impacts on both public access and plover nesting. After monitoring results indicated a significant decrease in plover population of Vandenberg, the Fish and Wildlife Service recommended an immediate emergency closure of 3 miles of publicly accessible beaches (starting just south of Surf Station and continuing 3 mi. further south) where the greatest concentrations of plover nesting occurs. The Air Force complied with this recommendation, and on September 2, 1999, the Commission's Executive Director concurred with the Air Force's negative determination (ND-87-99) for after-the-fact beach closures for the summer 1999 snowy plover nesting, with an agreement for follow-up submittals in 2000.

In February of 2000, the Air Force submitted a consistency determination for an interim beach closures that was similar to the 1999 closure except that only a half mile of Surf Beach remained open to the public, with the northern boundary about ½ mile south of the Santa Ynez River (Exhibit 2). The Commission's concurrence with that interim closure was made in part because of the Air Force's commitment to develop and submit a Plover Management Plan by summer 2000. That plan has not been finalized.

**III. Status of Local Coastal Program.** The standard of review for federal consistency determinations is the policies of Chapter 3 of the Coastal Act, and not the Local Coastal Program (LCP) of the affected area. If the Commission certified the LCP and incorporated it into the California Coastal Management Program (CCMP), the LCP can provide guidance in applying Chapter 3 policies in light of local circumstances. If the Commission has not incorporated the LCP into the CCMP, it cannot guide the Commission's decision, but it can provide background information. The Commission has certified Santa Barbara County's LCP and incorporated it into the CCMP.

**IV. Federal Agency's Consistency Determination.** The U.S. Air Force has determined the project to be consistent to the maximum extent practicable with the California Coastal Management Program.

**V. Staff Recommendation.** The staff recommends that the Commission adopt the following motion:

**A. Motion:**

*I move that the Commission agree with consistency determination CD-23-01 that the project described therein is fully consistent, and thus is consistent to the maximum extent practicable, with the enforceable policies of the California Coastal Management Program (CCMP).*

**B. Staff Recommendation.** Staff recommends a **NO** vote on the motion. Failure to pass of this motion will result in an objection to the determination and adoption of the following resolution and findings. An affirmative vote of a majority of the Commissioners present is required to pass the motion.

**C. Resolution to Object to Consistency Determination.** The Commission hereby **objects** to the consistency determination by the U.S. Air Force, on the grounds that the project described therein is not consistent to the maximum extent practicable with the enforceable policies of the CCMP.

**VI. Consistent to the Maximum Extent Practicable.**

Section 930.32 of the federal consistency regulations provides, in part, that:

*(1) The term "consistent to the maximum extent practicable" means fully consistent with the enforceable policies of management programs unless full consistency is prohibited by existing law applicable to the Federal agency.*

The Commission recognizes that the standard for approval of Federal projects is that the activity must be "consistent to the maximum extent practicable" (Coastal Zone Management Act Section 307(c)(1)). This standard allows a federal activity that is not fully consistent with the CCMP to proceed, if compliance with the CCMP is "*prohibited [by] existing Federal law applicable to the Federal agency's operations*" (15 C.F.R. § 930.32). The Air Force has not demonstrated that this project is consistent to the maximum extent practicable with the CCMP by citing and "statutory provision, legislative history, or other legal authority which limits [its] ... discretion to comply with the provisions of the" CCMP (15 C.F.R. § 930.32). Therefore, there is no basis for the Commission to conclude that although the proposed project is inconsistent with the CCMP, it is consistent to maximum extent practicable.

## **VII. Project modifications.**

Section 930.43 of the federal consistency regulations (15 CFR § 930.43) requires that, if the Commission's objection is based on a finding that the proposed activity is inconsistent with the CCMP, the Commission must identify measures, if they exist, that would bring the project into conformance with the CCMP. That section states that:

*The State agency should also describe alternative measures (if they exist) which, if adopted by the Federal agency, would allow the activity to proceed in a manner consistent to the maximum extent practicable with the enforceable policies of the management program. Failure to describe alternatives does not affect the validity of the State agency's objection.*

As described in the findings below, the proposed project is inconsistent with the Access Policies of the CCMP. Pursuant to this federal regulation, the Commission is responsible for identifying measures, if they exist, that would bring the project into compliance with the CCMP. The proposed modification is as follows:

1. Develop and submit a plover management plan that provides for, in addition to any access restrictions that are determined to be appropriate, public education, enforcement of access restrictions, predator management, and habitat restoration.

## **VIII. Findings and Declarations**

The Commission finds and declares as follows:

**A. Regulatory Background.** The U.S. Fish and Wildlife Service listed the Pacific Coast population of the Western snowy plover as "threatened" in March 1993 under the Endangered Species Act (ESA) of 1973, as amended. The ESA mandates Vandenberg Air Force Base to protect snowy plovers within its borders and enforce the provisions of the ESA, which prohibit accidental and intentional take. "Take," as defined under the Section 3 of the Endangered Species Act, means to "*harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect this species, or to attempt to engage in any such conduct.*" Under the ESA, "species" includes snowy plover eggs as well as adults and chicks. The ESA also places a proactive requirement on all federal agencies to participate in the recovery of the species.

During the 1993 nesting season, the U.S. Fish and Wildlife Service reported to Vandenberg that normal public activity previously permitted within snowy plover nesting habitat on Ocean Beach resulted in both direct mortality to snowy plover eggs and harassment of adults and chicks. Overall, observed fledging success was far lower at Ocean Beach, which is open to the public, than at other Vandenberg

beaches that are not open to the public. Snowy plovers nest in sandy areas above the high tide line along the entire length of Ocean Beach. On December 7, 1999, the Fish and Wildlife Service adopted formal "critical habitat" designations for the plover, including all beaches where the plover nests on Vandenberg, including publicly accessible Surf and Wall beaches.

The ESA requires federal agencies to consult with the U.S. Fish and Wildlife Service regarding actions that may affect listed species. Such actions include management of recreational beach use that results in a take of Western snowy plovers or otherwise affects this listed species. The ESA also directs Federal agencies to use their authorities to further the purposes of the Act, which include conservation and recovery of listed species.

In October of last year, the Air Force published an environmental assessment for beach and snowy management on Vandenberg. The Air Force submitted a biological assessment on that plan to the Service in compliance with Section 7 of the ESA. In January 2001, the Service produced a draft biological opinion for the Air Force's management plan, which concluded that the plan would jeopardize the continued existence of the snowy plover. In response to that plan, the Air Force proposed to extend the previously approved interim closure through the 2001-nesting season. The Air Force has also agreed to increase its enforcement of the beach closures, prepare a predator management plan, beach restoration plan, and provide for public education.

On March 7, 2001, the Air Force submitted a negative determination to the Commission for complete closure of all beaches on Vandenberg for the period between March 1, 2001, and the April 13, 2001. That negative determination was necessary because the Service had not yet issued its biological opinion for beach restrictions on Vandenberg, and thus the Air Force did not have authority to allow any take of the plover from recreational activities on the beach. The Service issued its biological opinion on March 9, 2001 (Exhibit 5). That opinion requires the Air Force to increase its enforcement of the beach regulations. Until the Air Force hires and trains its enforcement personnel, it cannot reopen the limited portions of the closed beaches. The consistency determination before the Commission includes a request to extend the total closures until mid-April and re-apply the previously approved interim restrictions.

**B. Public Access and Recreation.** Section 30210 of the Coastal Act provides for maximizing public access and recreation opportunities, providing that such activities take into account natural resource protection needs. Section 30213 provides for protection of lower cost visitor and recreational facilities. Section 30214 elaborates on access management considerations, providing that:



*(a) The public access policies of this article shall be implemented in a manner that takes into account the need to regulate the time, place, and manner of public access depending on the facts and circumstances in each case including, but not limited to, the following:*

...

*(2) The capacity of the site to sustain use and at what level of intensity.*

*(3) The appropriateness of limiting public access to the right to pass and repass depending on such factors as the fragility of the natural resources in the area....*

The access policies of the Coastal Act clearly provide for restricting public access and recreational opportunities in order to protect natural resource areas, such as nesting habitat for a threatened species. However, in order to understand the significance of the impact of the proposed restrictions, the Commission must analyze these access restrictions in the context of the existing access resources in the area. Access to the northern Santa Barbara County coast is more limited than almost any other portion of the California coast. Between Gaviota and Point Sal is a 64-mile stretch of coastline that is only fully open to the public at two locations: Surf Beach and Jalama Beach. There are some other limited access opportunities on Vandenberg, which require permits from the Air Force Base and are limited to fishing. All of these beaches are subject to temporary closures during missile launches at Vandenberg.

Three large landowners, the Air Force, Bixby Ranch, and Hollister Ranch, own most of the coast in this area. The Commission has a long and extensive history of concern over the limitations on public access to this area of the coast, including numerous attempts to implement the public access provisions of the Coastal Act at Hollister and Bixby Ranches through the permit and LCP processes. Although the Santa Barbara County LCP contains public access requirements that would be triggered by development at Bixby Ranch, that development has not occurred and that area remains inaccessible. In addition, the Commission concurred with a consistency determination (CD-21-82) by the Air Force for the construction of a Space Shuttle launch facility, in part, because it included additional public access at Ocean Beach and north of Jalama Beach. In another consistency determination (CD-5-89), the Commission staff recommended objection (the Air Force withdrew the project at the hearing) to a proposal to construct a new launch facility because of impacts, including closures, to the use of Jalama Beach. Finally, the Commission objected to a consistency determination (CD-65-90) for the Air Force's proposed acquisition of development rights on Bixby Ranch, because it affected the local government's ability to implement the access provisions of its LCP. These actions

demonstrate that protecting existing and providing new access opportunities in this area of the coast is a high priority for the Commission.

At the same time, just as Vandenberg provides critically needed public access opportunities in an area where access is limited, it is equally, if not more, critical to the survival of the snowy plover. As discussed in the ESHA section below, habitat for the snowy plover is an ESHA under the Coastal Act, and Vandenberg provides important habitat that is necessary for the survival and recovery of the bird. Because of the historic and geographic limitations on public access to the shoreline, snowy plover issues on publicly open beaches on Vandenberg are complex and difficult issues for the Commission. The Commission is forced to make a difficult choice between protecting snowy plover habitat that the Service and other biologists (including Gary Page of the Point Reyes Bird Observatory) have identified as critical to the survival and recovery of the species.

There is a significant amount of research that indicates that human activities on the beach affect snowy plovers. In its biological opinion, the Service describes this impact and the scientific research into this issue as follows:

*The Pacific coast population of the western snowy plover has experienced widespread loss of nesting habitat and reduced reproductive success at many nesting locations due to urban development and the encroachment of European beachgrass. Human activities such as walking, jogging, unleashed pets, horseback riding, and off-road vehicles can destroy the western snowy plover's cryptic nests and chicks. Indirect impacts from these activities include disturbance of western snowy plover adults to the extent that they abandon nests or interference with incubation to the point that eggs become buried by sand or fail to hatch because of exposure to cold or heat (Warriner et al. 1986). Western snowy plovers do not usually abandon their nests because of wind without another compounding factor such as human disturbance (Page, pers. comm.). Human activities can also interfere with foraging activities by disrupting the ability of adults and chicks to get to the wet beach to feed and return to the dunes or their nest (Burger 1993). Chicks can also become separated from their parents as a result of human disturbance of broods. Such disturbance could cause or contribute to chick mortality by interfering with essential chick-rearing behaviors or by causing intolerable stresses directly to the chicks (Cairns and McLaren 1980). For example, separation of chicks and their parent can lead to lethal exposure to wind and cold temperatures or disturbance that interferes with foraging could result in the starvation of western snowy plover chicks. In some instances, disturbance associated with these types of recreational activities is expected to temporarily flush western snowy plovers and not affect the birds in such a substantial manner. In other cases, such disturbance could interfere with the*

*metabolism and thermoregulation of western snowy plover chicks and migrating or wintering adults such that they starve or egg production is impaired during the subsequent nesting season (Cairns 1982). The available information regarding the energetics of western snowy plovers is inadequate to assess the likelihood that such injury or mortality would result. In 1998, a pattern of increased chick loss over weekends (when increased human use of beach areas occurs) was observed by western snowy plover researchers at Point Reyes National Seashore. In response to this observation, a protocol for collecting data on chicks was standardized in 1999 and 2000. Chicks were observed on Fridays and then again on Mondays (or the day after a holiday). Chick loss over weekends was over 1.5 times the weekday loss. Data from 1999 and 2000 show almost identical trends (Page, pers. comm.).<sup>1</sup>*

Additionally, the monitoring reports for snowy plovers on Vandenberg have documented, since 1996 (when regular monitoring of fledging success began), that those beaches that are open to recreational use usually have lower fledging success than closed beaches.

**Table 1: Chick fledging rate by beach segment on Vandenberg, 1997 to 2000.<sup>2</sup>**

Year	North Beaches <sup>3</sup>	Purissima Beaches <sup>4</sup>	South Beaches <sup>5</sup>	Base Wide
1997	33-34%	23-27%	12%	24-26%
1998	0%	--	12%	6%
1999	53%	--	53%	53%
2000	32%	--	30%	31%

These monitoring data generally show that north beaches have better fledging success than south beaches and that fledging success improved after the Air Force implemented its closures. Since most of the south beaches were opened for

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<sup>1</sup> Biological Opinion for Beach management and the Western Snowy Plover on Vandenberg Air Force Base for the 2001 Breeding Season (1-8-01-F-13).

<sup>2</sup> Western Snowy Plovers on Vandenberg Air Force Base, 2000 final Report, Thomas E. Applegate and Sandra J. Schultz, January 2, 2001, p. 22.

<sup>3</sup> Includes Minuteman, Shuman, and San Antonio Beaches.

<sup>4</sup> Includes the Purisma and Purisma North Colonies, the Air Force stopped collecting fledging data after 1997.

<sup>5</sup> Includes Wall, Surf North, and Surf South Beaches.

recreational use and only a small portion of the north beaches are used for recreational purposes, these data seem to indicate that recreational use adversely affects fledging success. However, the sample size for this data is too small to draw any conclusions about the relationship between recreational use of the beach and fledging success.

The monitoring reports also provide some data on nest hatching success on Vandenberg.

**Table 2 Percent hatch rate of known fate nests by beach segment on Vandenberg, 1994-2000<sup>6</sup>**

Year	North Beaches	Purisima Beach	South Beaches	Base-wide
1994	28	75	28	31
1995	46	100	31	43
1996	57	93	48	55
1997	22	93	11	19
1998	42	50	29	37
1999	81	78	38	57
2000	47	0	28	32

This table shows the percentage of nests that successfully hatched in any given area. On the Purisima Beaches, the hatch rate was high in most years and this nesting success is probably attributable to very low recreational use of the beaches (use is limited to fishing and requires a permit), and fencing and other predator controls implemented to protect the least tern, a federally listed endangered species that nests on that beach. Excluding the Purisima Beach data and comparing south beaches, which are generally open to recreational use, and north beaches, which are generally closed to recreational use, there do not appear to be any obvious conclusions that can be reached. South beaches generally had lower hatching success than north beaches and the difference between the areas seems to be

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<sup>6</sup> Western Snowy Plovers on Vandenberg Air Force Base, 2000 final Report, Thomas E. Applegate and Sandra J. Schultz, January 2, 2001, p. 21.

increasing. However, the differences are not that significant in most cases (ranging between 0% and 43%, with a mean difference of approximately 16%). One of the other relationships that seems to be occurring is that in the last two years with more extensive restrictions on beach use, the difference in hatching success between north and south beaches seems to be increasing. However, the Commission hesitates to make any conclusions at this point. With only seven years of monitoring, there are not enough data to make any statistically reliable conclusions.

Although most of the data for the last seven years are not conclusive, one factor remains clear: the population of snowy plovers is declining. The Pacific Coast population of the western snowy plover has declined over the last few years and continues to decline. The range-wide population of adult plovers has decreased by 29% from (1371 to 976).<sup>7</sup> The population decline on Vandenberg has been slightly more dramatic than the range-wide declines. The Vandenberg population has declined from 242 adult birds in 1991 to 106 adult birds in 2000,<sup>8</sup> a 56% decline. Recent monitoring data at Vandenberg documents this decline and also shows a decline in total number of nests and nests that resulted in hatched birds.

**Table 3. Western snowy plover population size and number of nests at Vandenberg.**<sup>9</sup>

Year	Mean Number of Plovers	Total Number of Nests	Total Number of Nests Hatched
1994	223	260	72
1995	211	223	84
1996	224	286	149
1997	238	411	77
1998	132	150	49
1999	78	104	52
2000	105	140	41

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<sup>7</sup> Biological Opinion for Beach management and the Western Snowy Plover on Vandenberg Air Force Base for the 2001 Breeding Season (1-8-01-F-13), P.14..

<sup>8</sup> Ibid.

<sup>9</sup> Biological Opinion for Beach management and the Western Snowy Plover on Vandenberg Air Force Base for the 2001 Breeding Season (1-8-01-F-13, PP. 13-14

The declines in adult plovers, nests, and hatching that these data document makes it clear that additional protections are necessary for this species. The Service, Air Force, and Commission are concerned that this decline may continue unless something is done to protect the birds' nesting habitat. There are not enough data to determine the cause or causes of this decline. It is likely that a combination of El Niño weather events, predation, recreational use of the beach, and other human activities cause the decline. The range-wide and base-wide declines are significant enough to warrant appropriate action by the Service. At Vandenberg, the Service and the Air Force have agreed to restrict recreational use of the beach, increase predator controls, and implement habitat improvements. The general approach is to err on the side of caution. In other words, it is imperative that the Air Force takes every feasible measure to protect the species, even if there is not enough data to document the primary cause or causes of the decline. Therefore, the Commission generally supports the proposed beach closures as a cautious measure warranted to protect the plover, in light of its threatened status and its continued population decline.

However, the proposed closures submitted by the Air Force in this consistency determination are not consistent with the access policies of the CCMP. First, the Air Force's consistency determination provides for the option of closing all the beaches to recreation use because of concerns over the ability of the Air Force to meet the enforcement requirements of the Service's biological opinion. The Air Force is in the process of preparing an enforcement plan, which is necessary in order to ensure that the beach goes adhere to the recreational restrictions. However, without an enforcement plan, the Commission cannot determine if the Air Force's management efforts would protect the bird. If the Air Force's measures are not sufficient, the Air Force may have to increase its recreational restrictions and the restrictions may last longer. In other words, inadequate beach restrictions and enforcement measures may allow for less restricted recreational opportunities (inconsistent with plover protection) in the short term, but may require more extensive restrictions in the long term. Therefore, without an adequate enforcement plan, the Air Force would not protect the plover or maximize public access in a manner consistent with the Coastal Act over the long run. Therefore, the Commission finds that the proposed access restrictions on Vandenberg beaches are inconsistent with the access policies of the CCMP.

The second basis for finding the proposed beach recreation restrictions inconsistent with the access policies of the Coastal Act is the lack of a plover management plan for Vandenberg. If the closures are not implemented in an overall management context, the plover population is likely to continue to decline. Members of the public have expressed concerns that public access is not the primary cause of the snowy plover population declines, but rather that predation is the most significant cause of the habitat impacts.

**Table 4. Percent of failed nests on north or south beaches attributed to various causes.<sup>10</sup>**

Year	Predation		Human		Abandoned		Surf or Wind		Unidentified Causes	
	North	South	North	South	North	South	North	South	North	South
1994	51	51	0	1	7	15	1	5	41	28
1995	40	32	0	0	12	36	9	2	39	30
1996	54	38	0	3	19	36	4	1	23	22
1997	65	64	0	0.05	5	5	2	3	28	28
1998	80	73	0	4	3	7	6	7	11	9
1999	14	53	0	8	43	17	29	11	14	11
2000	60	82	0	0	20	8	10	3	10	7

This table clearly shows that the percentage of failed nests attributed to predators is relatively high. The Commission believes that without meaningful predator management, the plover population on Vandenberg is not likely to significantly improve and the access and recreation restrictions would continue indefinitely. Commission review of a predator management plan is necessary to determine if it is adequate to protect the plover (thus improving the likelihood that the beach restrictions will be reduced in the future) and determine if the plan would result in any other effects on coastal resources or uses. The Air Force has agreed to incorporate a predator management plan into this consistency determination. However, the Commission has not received the predator management plan, and therefore, the Commission cannot determine whether the project would protect plover and public access resources.<sup>11</sup>

<sup>10</sup> Modified from Western Snowy Plovers on Vandenberg Air Force Base, 2000 final Report, Thomas E. Applegate and Sandra J. Schultz, January 2, 2001, p. 22.

<sup>11</sup> Staff Note: As of the publication of this recommendation, the Commission has not received the plan, but we expect to receive it before the Commission meeting in May and will provide an analysis of that plan at that time.

In addition, unless public education is a component of the access restrictions, it is more likely that there would continue to be conflicts between access and the plovers. Finally, plover populations and reproductive success could possibly be improved by habitat restoration, mainly removal of exotic vegetation including European beach grass and ice plant. As the Commission stated above, the plover population is declining and the Service and the Air Force must take every measure available to protect the species.

For several years, the Air Force has committed to the Commission that it would prepare a management plan for the plovers. In May 1998, the Air Force committed to prepare a management plan for the plover as part of the Commission concurrence with its consistency determination for the Evolved Expendable Launch Vehicle program, CD-049-98. In its consistency determination for the interim closures during the 2000 nesting season (CD-19-00), the Air Force stated that the closures were interim because it was preparing a management plan, which was expected to be completed by the summer of 2000. Although the Air Force circulated a draft environmental assessment for the management plan, the document is not final and has not been submitted to the Commission.

The decision to continue to implement interim restrictions without an overall management plan is likely to not adequately provide for the protection and recovery of the plover. In addition, the duration of the access restrictions is likely to be longer, if not permanent, without implementation of other measures, such as predator control. In other words, public access to shoreline is being restricted in a manner that may not significantly protect the habitat. Therefore, without predator controls the restriction is not consistent with the Coastal Act's natural resources exception to the requirement to maximize public access and recreation opportunities, and the Commission finds that the proposed restrictions are not consistent with the access policies of the CCMP.

**C. Environmentally Sensitive Habitat.** Section 30240(a) of the Coastal Act provides that:

*Environmentally sensitive habitat areas shall be protected against any significant disruption of habitat values, and only uses dependent on such resources shall be allowed within such areas.*

In evaluating the project for consistency with the Environmentally Sensitive Habitat Area (ESHA) policy of the Coastal Act, the Commission must determine if the habitat affected by the proposed activity is an ESHA. In March 1993, the U.S. Fish and Wildlife Service listed the Pacific Coast population of the Western snowy plover as a threatened species. The snowy plover is a small pale colored shorebird with dark patches on either side of the upper breast. Snowy plovers forage on invertebrates in the wet sand, surf-cast kelp within the intertidal zone, dry sandy areas above high



tide, on salt pans, dredge spoil sites, and along the edges of salt marshes and salt ponds. The plover nests in loose colonies along beaches that provide on flat open areas with sandy or saline substrates. The nest areas are normally devoid of vegetation and driftwood. The plover nests on sand spits, dune-backed beaches, unvegetated beach strands, open areas around estuaries, and beaches at river mouths. In publishing the Final Rule designating the threatened status of the species, U.S. Fish and Wildlife Service describes the status of the species as follows:

*Poor reproductive success, resulting from human disturbance, predation, and inclement weather, combined with permanent or long-term loss of nesting habitat to encroachment of introduced European beach grass (*Ammophila arenaria*) and urban development has led to a decline in active nesting colonies, as well as an overall decline in the breeding and wintering population of the western snowy plover along the Pacific coast of the United States.*<sup>12</sup>

Vandenberg provides important habitat for the snowy plover. The sandy beach and lagoons within the base provide both nesting and wintering habitat. There are approximately 12.5 miles of beach used by the plover on the base and the Service has listed all of these beaches as critical habitat for the snowy plover. In its most recent biological opinion, the Service described the importance of Vandenberg to the recovery of the snowy plover as follows:

*Since the first comprehensive surveys for western snowy plovers in western North America in the late 1970s, **Vandenberg AFB has consistently held one of the largest concentrations of breeding western snowy plovers along the west coast** of the United States (Page and Stenzel 1981, Page et al. 1991). Vandenberg AFB accounted for 242 of 1371 adult western snowy plovers on a 1991 breeding-season survey of the California coast and had the highest number of adults of any area in California in the 1991 survey (Page 2001). Although no coast-wide surveys were attempted between 1992 and 1994, Vandenberg AFB supported a mean number of 223 adult western snowy plovers during the 1994 breeding season, indicating continuing high numbers (Persons 1995). In 1995, a coalition of researchers counted western snowy plovers in mid-breeding season in California coastal areas covered on previous state-wide surveys. They tallied a total of 974 adults; **the highest regional total, 213 birds, was again at Vandenberg AFB** (Page 2001). ....*

**Vandenberg AFB provides one of the greatest opportunities for**

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<sup>12</sup> Federal Register, Vol. 58, No. 42, March 5, 1993, pp. 12864-12874.

*recovery of the western snowy plover throughout its range because it has consistently supported one of the largest concentrations of breeding individuals throughout the species' range, has the largest continuous mainland coastal habitat under Federal ownership, and is expected to be able to support 400 adult birds during the breeding season.*<sup>13</sup> (Emphasis Added)

Within the Vandenberg, Surf beach provides some of the most important nesting habitat for the plover. The snowy plover nests along the entire length (approximately 4 miles) of Surf Beach. In a 1995, environmental assessment, the Air Force described the status of the bird at Surf Beach (which is sometimes referred to as Ocean Beach, named after the County Park adjacent to the Santa Ynez River estuary) as follows:

*Vandenberg Air Force Base supports approximately 200 breeding snowy plovers (USFWS 1994). In 1993, 82 of these nested on Ocean Beach. The remainder is on beaches on the northern portion of the base which are restricted to base personnel. .... The Ocean Beach population represents 6 percent of the entire California population of the threatened coastal population of the western snowy plover.*<sup>14</sup>

In the Vandenberg snowy plover monitoring report for the 2000 nesting season, there were 71 nests identified on Surf Beach,<sup>15</sup> which represented approximately 50% of the nests on the base (Surf Beach provides approximately 33% of the nesting habitat on Vandenberg). In addition, approximately 50 chicks hatched on Surf Beach,<sup>16</sup> which represents over 60% of the chicks hatched on the base. In other words, a 1/3 of the nesting habitat on the base provided for over half the nests and hatchlings during the 2000 nesting season.

Clearly, Surf Beach is an important component of the nesting habitat on Vandenberg, which is one of the most important breeding and nesting habitats on the Pacific Coast. Additionally, the Service has designated the sandy beaches on the base as Critical Habitat<sup>17</sup> for the snowy plover. Thus, the Commission finds that the sandy beaches on Vandenberg that provide nesting habitat for the snowy plover are ESHAs under the Coastal Act.

As described in the access section above, the Commission is concerned that a proposal to restrict access that does not also include other necessary management

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<sup>13</sup> U.S. Fish and Wildlife Service Biological Opinion, *March 9, 2001*

<sup>14</sup> Draft Environmental Assessment, Modification of Public Access Routes at Ocean Beach Vandenberg Air Force Base, California, March 1995.

<sup>15</sup> Western Snowy Plovers on Vandenberg Air Force Base, 2000 Final Report, January 2, 2001.

<sup>16</sup> Ibid.

<sup>17</sup> Federal Register Vol. 64, December 7, 1999, p. 68508

efforts, especially predator control, is not consistent with the access policies of the Coastal Act. However, in evaluating consistency with the ESHA policies, the primary question, in this case, before the Commission is whether the interim restrictions are consistent with the ESHA policies of the CCMP. Section 30240 of the Coastal Act restricts the types of uses within an ESHA to activities that are dependent on the sensitive resources. In this case, the Air Force proposes to restrict beach recreation activities in order to protect the snowy plover. As described in the access section above, the Pacific Coast population of the western snowy plover has declined over the last few years and continues to decline. In response to this significantly declining population on Vandenberg, the Air Force, in coordination with the Service, proposes to implement stronger protection measures for the plovers. The primary snowy plover protection measure proposed by the Air Force at this time is restriction of beach use. In its biological opinion, the Service discusses impacts of recreational activities on the snowy plover:

*The Pacific coast population of the western snowy plover has experienced widespread loss of nesting habitat and reduced reproductive success at many nesting locations due to urban development and the encroachment of European beachgrass. Human activities such as walking, jogging, unleashed pets, horseback riding, and off-road vehicles can destroy the western snowy plover's cryptic nests and chicks. Indirect impacts from these activities include disturbance of western snowy plover adults to the extent that they abandon nests or interference with incubation to the point that eggs become buried by sand or fail to hatch because of exposure to cold or heat (Warriner et al. 1986). Western snowy plovers do not usually abandon their nests because of wind without another compounding factor such as human disturbance (Page, pers. comm.). Human activities can also interfere with foraging activities by disrupting the ability of adults and chicks to get to the wet beach to feed and return to the dunes or their nest (Burger 1993). Chicks can also become separated from their parents as a result of human disturbance of broods. Such disturbance could cause or contribute to chick mortality by interfering with essential chick-rearing behaviors or by causing intolerable stresses directly to the chicks (Cairns and McLaren 1980). For example, separation of chicks and their parent can lead to lethal exposure to wind and cold temperatures or disturbance that interferes with foraging could result in the starvation of western snowy plover chicks. In some instances, disturbance associated with these types of recreational activities is expected to temporarily flush western snowy plovers and not affect the birds in such a substantial manner. In other cases, such disturbance could interfere with the metabolism and thermoregulation of western snowy plover chicks and migrating or wintering adults such that they starve or egg production is impaired during the subsequent nesting season (Cairns 1982). The available information regarding the energetics of western snowy plovers is inadequate*

*to assess the likelihood that such injury or mortality would result. In 1998, a pattern of increased chick loss over weekends (when increased human use of beach areas occurs) was observed by western snowy plover researchers at Point Reyes National Seashore. In response to this observation, a protocol for collecting data on chicks was standardized in 1999 and 2000. Chicks were observed on Fridays and then again on Mondays (or the day after a holiday). Chick loss over weekends was over 1.5 times the weekday loss. Data from 1999 and 2000 show almost identical trends (Page, pers. comm.).<sup>18</sup>*

The Service's biological opinion demonstrates that recreational activities on the beach adversely affect the snowy plovers and, based on this opinion, the Air Force determined that it is necessary to significantly reduce beach recreational activities in order to prevent continued decline of plover numbers. While the proposed project does not address all of the possible causes of the population decline, it is a reasonable management measure that is likely to improve nesting habitat on Vandenberg. As a management measure improving habitat quality, it is dependent on the resource it is intended to serve. Therefore, the Commission finds that the proposed project is dependent on the sensitive resources.

Section 30240 of the Coastal Act also requires activities within an ESHA to avoid significant disruption to the sensitive habitat. The proposed project will reduce the beach recreation activities within the ESHA. As described above, these activities can adversely affect snowy plover reproductive success. Therefore, the proposed beach restrictions will reduce the existing disruptions to the plover, and thus, the Commission finds that the project will not significantly disrupt snowy plover habitat.

As discussed in the access section above, the community members affected by the beach restrictions argue that recreational use is not the primary cause of the decline in the plover population. The community members argue, and provide substantial evidence to support this conclusion, that predation is the main culprit. However, the question before the Commission in this part of the analysis is not whether public use is to blame for snowy plover population declines, but whether beach recreation restrictions provide additional protection for the plover. Since the population has significantly declined in recent years, it is clear that the Air Force should adopt all measures to protect the bird.

Another question before the Commission is the issue of nesting plovers occurring in the area to be opened for recreation use. In past years, the plovers have nested on the open portions of these beaches, but in relatively low numbers.

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<sup>18</sup> Ibid.

**Table 5. Western Snowy Plover Nests by Year on Areas Proposed for Recreational Beach Access.**<sup>19</sup>

Location	Year							Range
	1994	1995	1996	1997	1998	1999	2000	
North Wall 0.25 mile	1	0	0	1	3	1	0	1-3 (0-2% of all nests)
North Surf 0.5 mile	8	5	2	6	0	3	3	0-8 (0-3% of all nests)
North Minuteman 0.5 mile	0	0	0	0	0	0	0	0 (0%)
TOTAL	9	5	2	7	3	4	3	2-9
% of All Nests	3%	2%	1%	2%	2%	4%	2%	1-4%

The total closure of all of Vandenberg's beaches including the areas proposed to be opened may remove a deterrent that, in past years, discouraged nesting in the opened areas. Thus the total closure may allow for increased nesting in the proposed open areas and increase the impact from recreation activities when the beaches are reopened. Monitoring data from this year (2001) shows only two nests in the proposed open area of Surf Beach and no nests in the proposed open areas of Wall and Minuteman Beaches (pers. com. Nancy Read Francine, 4/17/01). Since this level of use is consistent with past nesting behavior, the proposed recreational uses would not significantly affect the ESHA. However, if the number of nests significantly increases, the impact would also increase.<sup>20</sup>

In conclusion, the sandy beaches on Vandenberg support nesting snowy plovers, a federally listed threatened species. In addition, the Service has designated these beaches as "Critical Habitat" for the snowy plover. Therefore, the snowy plover habitat on Vandenberg is an ESHA. The purpose of these access restrictions is to provide better management of the sensitive resource and, as such, is an activity that is dependent on the sensitive habitat resources. Finally, since the beach restrictions

<sup>19</sup> Biological Opinion for Beach management and the Western Snowy Plover on Vandenberg Air Force Base for the 2001 Breeding Season (1-8-01-F-13), P.18.

<sup>20</sup> Staff Note: The data presented is current as of the publication of this recommendation. However, the number of nests in the area may change by the time the Commission acts on this item. Staff will be monitoring this data and provide up-to-date information at the hearing.

will reduce human disturbances, the activity would not significantly affect the ESHA. Therefore, the Commission finds that the project is consistent with Section 30240 of the Coastal Act.

**IX. SUBSTANTIVE FILE DOCUMENTS.**

1. Consistency Determination No. CD-67-95 (Air Force, Public access restrictions for snowy plover); Consistency Determination No. CD-19-00 (Air Force, Public access restrictions for snowy plover); Negative Determination No. ND-87-99 (Air Force, after-the-fact emergency beach closure to protect snowy plover; Negative Determination No. ND-20-00 (Air Force, "immediate" (i.e., March 1-March 15, 2000 beach closure); Negative Determination No. ND-19-01 (Air Force, Immediate closure of all sandy beaches between March 1, 2001 and April 13, 2001).
2. Designation of Critical Habitat for Pacific Coast Population of the Western snowy Plover; Federal Register Vol. 64, No 234, page 68508 et seq., December 7, 1999.
3. Final Report - Western Snowy Plover Monitoring in 1993 at Vandenberg Air Force Base, February 2, 1994.
4. Final Rule for Determination of Threatened Status for the Pacific Coast Population of the Western snowy Plover; Federal Register Vol. 58, No 42, page 12864; March 5, 1993.
5. Page, Gary W., et al., Distribution and Abundance of the Snowy Plover on its Western North American Breeding Grounds; Journal of Field Ornithology, 62(2): 245 - 255.
6. Consistency Determinations: CD-21-82 (Air Force, Space Shuttle Facility), CD-5-89 (Air Force, Titan IV at SLC-7), CD-28-90, (Air Force, Titan IV at SLC-6), CD-65-90 (Air Force, Acquisition of development rights on Bixby Ranch), and CD-12-94 Air Force experimental seasonal beach closure, Ocean Beach).
7. Draft Environmental Assessment, Modification of Public Access Routes at Ocean Beach Vandenberg Air Force Base, California, February 22, 1994.
8. Draft Environmental Assessment, Modification of Public Access Routes at Ocean Beach Vandenberg Air Force Base, California, March 1995.
9. U.S. Fish and Wildlife Service, Biological Opinion on the proposal to modify recreational beach access, Ocean Beach, Vandenberg Air Force Base, February 3, 1995.
10. Preliminary Findings, Snowy Plover Reproductive Success on Ocean Beach, Vandenberg Air Force Base, California, U.S. Air Force, prepared for the California Coastal Commission, July 1998.

11. Draft Environmental Assessment, Beach Management and the Western Snowy Plover at Vandenberg Air Force Base, October 30, 2000.
12. Western Snowy Plovers on Vandenberg Air Force Base, 2000 Final Report, January 2, 2001.
13. Biological Opinion for Beach Management and the Western Snowy Plover at Vandenberg Air Force Base for the 2001 Breeding Season (1-8-01-F-13), March 9, 2001.